



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 82-4-L64-835-EM10W-DIM-UNV(EMER MODE)_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 20804.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 07-14-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO. 64836
 [LUMINAIRE] 4-28 LED 22" ARRAYS 4' INDUSTRIAL LUMINAIRE
 [MORE] WHITE REFLECTOR w/OPEN BOTTOM
 [LUMCAT] 82-4-L64-835-EM10W-DIM-UNV(EMER MODE)

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1480
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	148
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.34
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.08 ft
Luminous Height	0.00 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1415	1393	1375
55	1383	1370	710
65	1298	707	693
75	1032	229	213
85	357	178	79

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	552.682	552.682	552.682	552.682	552.682
5	561.491	551.754	546.886	545.959	546.191
10	555.464	545.959	541.090	540.163	540.163
15	546.191	536.454	531.585	544.104	552.682
20	532.744	523.008	533.440	529.731	538.308
25	514.198	506.316	518.139	498.897	499.361
30	493.797	488.001	481.510	478.728	478.264
35	467.832	479.192	454.386	456.704	454.386
40	435.144	456.704	429.580	427.494	424.480
45	403.152	401.761	396.892	392.024	391.792
50	362.350	358.872	357.018	346.585	220.470
55	319.461	318.534	316.447	165.526	164.135
60	269.386	273.559	145.589	142.575	142.575
65	220.934	220.006	120.320	116.147	118.001
70	163.208	165.063	92.732	32.224	25.269
75	107.569	65.376	23.878	22.024	22.256
80	55.407	28.283	17.155	14.373	13.446
85	12.519	10.432	6.259	3.246	2.782
90	0.464	4.405	1.623	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	204.85	N.A.	13.80
0-30	439.14	N.A.	29.70
0-40	728.45	N.A.	49.20
0-60	1266.15	N.A.	85.50
0-80	1469.51	N.A.	99.30
0-90	1480.1	N.A.	100.00
10-90	1427.81	N.A.	96.50
20-40	523.60	N.A.	35.40
20-50	826.45	N.A.	55.80
40-70	686.34	N.A.	46.40
60-80	203.36	N.A.	13.70
70-80	54.71	N.A.	3.70
80-90	10.59	N.A.	0.70
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1480.1	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	52.29
10-20	152.56
20-30	234.29
30-40	289.32
40-50	302.84
50-60	234.85
60-70	148.65
70-80	54.71
80-90	10.59
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	34	28	40	33	28	39	33	28	38	32	28	26

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UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	14.1	15.6	14.4	15.9	16.3	9.5	11.1	9.9	11.4	11.7
	3H	15.8	17.2	16.2	17.6	17.9	10.1	11.5	10.5	11.9	12.2
	4H	16.3	17.6	16.7	17.9	18.3	10.2	11.5	10.6	11.9	12.3
	6H	16.6	17.8	17.0	18.1	18.5	10.3	11.5	10.7	11.9	12.3
	8H	16.6	17.8	17.1	18.2	18.6	10.3	11.5	10.7	11.8	12.2
	12H	16.6	17.7	17.1	18.1	18.5	10.3	11.4	10.7	11.8	12.2

UGR Viewed Endwise

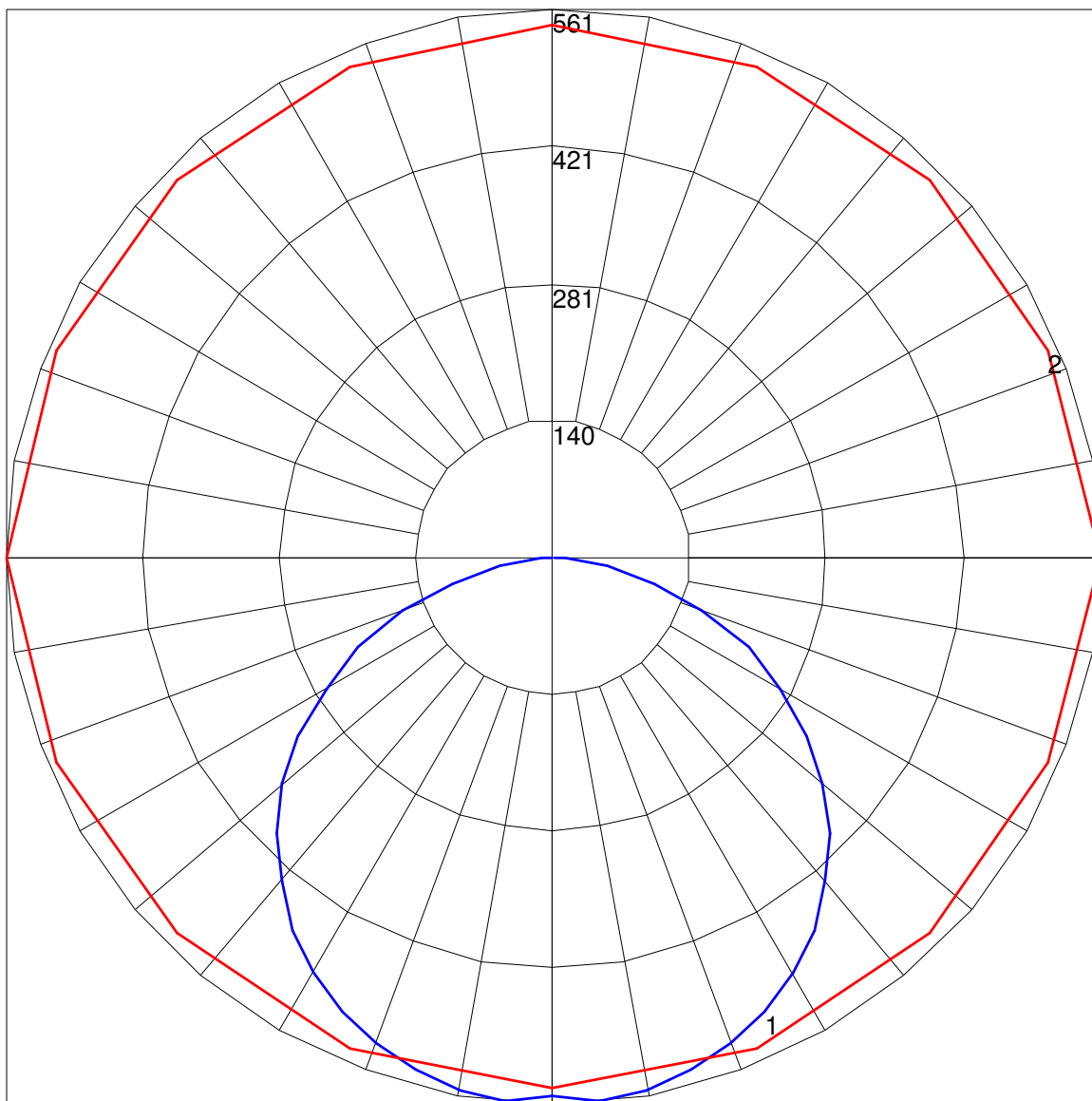
4H	2H	14.1	15.5	14.5	15.8	16.2	10.2	11.6	10.6	11.9	12.3
	3H	16.2	17.2	16.6	17.6	18.0	11.0	12.0	11.4	12.4	12.8
	4H	16.7	17.6	17.1	18.0	18.5	11.1	12.0	11.5	12.5	12.9
	6H	17.0	17.8	17.4	18.3	18.7	11.2	12.0	11.6	12.5	12.9
	8H	17.1	17.9	17.5	18.3	18.8	11.2	12.0	11.7	12.4	12.9
	12H	17.1	17.8	17.6	18.3	18.8	11.2	11.9	11.7	12.4	12.8

8H	4H	16.6	17.4	17.1	17.8	18.3	11.4	12.2	11.8	12.6	13.1
	6H	16.9	17.6	17.4	18.1	18.6	11.5	12.2	12.0	12.7	13.1
	8H	17.1	17.6	17.6	18.2	18.6	11.6	12.1	12.1	12.7	13.1
	12H	17.1	17.6	17.6	18.1	18.7	11.6	12.1	12.1	12.6	13.1

12H	4H	16.6	17.3	17.1	17.8	18.2	11.4	12.1	11.9	12.6	13.1
	6H	16.9	17.5	17.5	18.0	18.5	11.6	12.1	12.1	12.6	13.2
	8H	17.0	17.6	17.6	18.1	18.6	11.6	12.1	12.1	12.6	13.2

Maximum UGR = 18.8

POLAR GRAPH



Maximum Candela = 561.491 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)